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U S NAVY RESPONSE TO U S EPA COMMENTS TO DRAFT TECHNICAL MEMORANDUM NUMBER 3 FOR REMEDIAL INVESTIGATION PHASE IIA SOIL ASSESSMENT NAS WHITING FIELD FL
5/9/1995
ABB ENVIRONMENTAL

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May 9, 1995

Commanding Officer
ATTN: Jeff Adams, Code 1859
Southern Division
Naval Facilities Engineering Command
P.O. Box 190010
2155 Eagle Drive
North Charleston, SC 29419-9010

SUBJECT: **Response to Comments Draft Technical Memorandum No. 3**
Soils Assessment, Remedial Investigation - Phase IIA
Naval Air Station Whiting Field, Milton, Florida
Contract Task Order 050
Contract N62467-89-D-0317

Dear Jeff:

Enclosed are Response to Comment tables for the comments received for Technical Memorandum No. 3 - Soils Assessment, Remedial Investigation - Phase IIA at Naval Air Station (NAS) Whiting Field in Milton, Florida. All comments have been addressed and we are proceeding with revisions to the final document. Please forward the Response to Comments to the members of the Technical Review Committee so that if they have any questions or concerns they can be addressed prior to the final edition of the document.

We would appreciate receiving your review comments within two weeks of receipt of this letter. If you have any questions, please call me at 904-656-1293 (ext. 198).

Sincerely yours,
ABB ENVIRONMENTAL SERVICES INC.

Terry Hansen
Task Order Manager

cc: File: 7560-- (11.2.1)

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RESPONSE TO COMMENTS
U. S. Environmental Protection Agency (USEPA)
RI/FS Phase IIA
Technical Memorandum No. 3, Soils Assessment
NAS Whiting Field, Milton, Florida

General Comments

1. **ABB generated tremendous amount of data in support of the facility-wide soil assessment project, yet the summary portions of the Draft Technical Memorandum should include information from all investigative activities. Conclusions based upon the logical interpretation of data should also be provided.**

   During the Phase IIA RI/FS investigation, soil samples were collected and analyzed and will be used in the RI report to characterize the nature and extent of contamination. Based on the comments by USEPA during an RPM meeting on November 10, 1993, to discuss Technical Memorandum No.1, ABB-ES was instructed by the USEPA RPM that the Technical Memoranda were prepared to serve only as data summary reports of the Phase IIA sampling and analyses program (attached are minutes from the meeting - see page 2). Interpretations and conclusions from all data collected will be addressed in the RI report.

2. **The summary and conclusions (Section 5.0) provides an abbreviated site-by-site summary of findings. This section should provide a narrative description of how the data impacts future RI activities and site prioritization. Presentation of this information is important to augment the understanding of soil contaminant levels at the different sites across the facility and to focus any additional soil investigative efforts where needed most.**

   See response to comment 1. In addition, the description of how current RI data impacts future RI activities and site prioritization have been presented in two other Phase IIA documents: Technical Memorandum No. 7, RI Phase IIB Workplan, and the Site Management Plan.

3. **Background environmental media samples should always be obtained for each media type sampled. In the case of soils, a surface and subsurface soil sample should be obtained for each of the soil types identified at the NAS Whiting Field facility. The Draft Technical Memorandum provides a well-documented surface soil background establishment process; however, no subsurface soil background establishment procedures or data is identified for Sites 3, 6, 18, 29, 30 and 33. ABB identifies the lack of background subsurface data for these sites in Section 5.0 of the Draft Technical Memorandum. Background subsurface soil characteristics should be established to facilitate equitable comparison of sites.**

   As detailed in the attached RPM minutes (May 24, 1994), the USEPA and FDEP were made aware of the decision to characterize only surface soil for background. However, to facilitate future potential removal actions, background subsurface soils will be characterized during future investigation programs at the facility.

4. **The field investigative methods conducted under Phase IIA soil assessment included geophysical and soil gas surveys, the results of which are presented as Appendices A and C, respectively. These survey results are provided as separate documents; however, the information should be combined with findings from the test pit sampling activities for the**

corresponding sites in the site-specific summary within the Draft Technical Memorandum. Conclusions should be made as to the relevance of the combined data gathered to date.

The purpose of Technical Memorandum No. 3 is to convey a summary of the analytical data from soil sample collection during the Phase IIA RI/FS program. ABB-ES agrees that the geophysical and the soil gas survey data are associated with the assessment of surface and subsurface soils. However, correlations, inferences, or interpretations of all data collected from various RI phases will be presented in the RI report.

Specific Comments

1. **Page 1-17, Paragraph 2:**
The last sentence of this paragraph states that the decision to return Sites 4 and 7 to the IR program is still pending when in fact the decision has already been made to do so. Please revise.

Agree. The paragraph has been revised.

2. **Page 1-18, Bulleted Item 2 (Top of Page):**
The identification of lithological characteristics of soil in both the vadose zone and the sand-and-gravel aquifer within the facility is listed as one of the three objectives of the RI Phase IIA soil investigation. However, no data is presented which indicates this objective was met. The soil types identified in the Draft Technical Memorandum should include descriptions and depths of occurrence within the sand-and-gravel aquifer. The text does not mention the lithologic characteristics for the sand-and-gravel aquifer. If this information exists as part of Technical Memorandum No. 4 (Hydrogeologic Assessment), the objective of the soil investigation should be amended or explained accordingly.

This objective was not omitted but addressed in Technical Memoranda No. 2, Geologic Assessment and No. 4, Hydrogeologic Assessment. Appropriate references to the two documents noted above are now included in Section 4.3.

3. **Page 2-18, Paragraph 1 and Page 2-19, Table 2-3:**
The last sentence of this paragraph states that background surface soil samples were analyzed for TCL pesticides, PCBs, PAHs, and TAL inorganics; however, the samples were not analyzed for TCL VOCs nor SVOCs. In order for a proper comparison of analytes detected in background samples versus those detected in environmental media samples to be made, all background samples should be subjected to the same analytical protocols as the environmental media samples. In addition, without subjecting the background samples to the same analyses as the other source samples, no distinction can be made between contamination related to site activities with contamination related to other activities not related to the site.

Agree. Background soils may contain analytes that are naturally occurring as well as those of anthropogenic origin. The rationale for chemical analyses of the background soils was to target only organic chemicals that may be of natural or anthropogenic origin from nonpoint sources (see Technical Memorandum No. 6. RI/FS Phase 1, May 1992). The origin of any analytes detected in site-specific samples that do not belong to the group of background analytes would be attributed to the site disposal history. However, future analyses of all background samples will include the same analytical groups as the environmental media samples to confirm the appropriateness of specific background locations.

4. **Page 2-22, Paragraph 4:**
Given the reported disposal of thousands of gallons of JP-4 at Site 9, it would have been extremely useful in the investigation if Site 9 had been included in the passive soil gas survey using the Petrex method.

Comment noted. However, the Verification Study (Geraghty and Miller, 1986) did not detect any of the benzene, toluene, ethylbenzene, xylene (BTEX) compounds in 12 soil samples collected and analyzed from Site 9. This result suggested that volatile residual products of JP-4 allegedly disposed of at the site are no longer present in the soil. Also see response to "Specific Comments" No. 15.

5. **Page 3-12, Section 3.3:**
The statement is made that all samples were analyzed for TCL VOCs, SVOCs, pesticides, PCBs, TAL metals, and total cyanide. However, as stated previously, background samples were not analyzed for TCL VOC analytes. What was the rationale as to why background samples were not subjected to TCL VOC analysis?

Agree. See response to "Specific Comments" No. 3.

6. **Page 2-27, Paragraph 2:**
The text states that the termination depth of soil boring samples for laboratory analysis was determined by Organic Vapor Analyzer (OVA) readings above ambient air readings; however, there is no mention of OVA air monitoring results during soil boring and sample collection activities. At a minimum, a general statement regarding the impact, if any, the OVA air monitoring results had on determining the soil boring sample depths should be provided. A reference to the location of OVA air monitoring results should be provided.

Agree. The introductory paragraph in Section 4.5 of Draft Technical Memorandum No. 3 has been revised to include the role of OVA measurements on subsurface soil samples collected from the soil borings. A reference to OVA air monitoring results has been included in the revised report.

7. **Page 4-18, TCL SVOCs Section:**
Why wasn't bis(2-ethylhexyl)phthalate analyzed for in the background soil sample analyses?

The only group of SVOCs analyzed for in background soil samples were polyaromatic hydrocarbons (PAHs) because they are commonly occurring TCL SVOCs from natural and anthropogenic sources. BEHP is a phthalate ester. See response to "Specific Comments" No. 3.

8. **Appendix C, Soil Gas Survey:**
The text is missing page 3-2 and figures 3-6, 3-15 and 3-16. The text and figures should be provided.

The missing text and figures will be included in the revised document.

9. **Appendix C, Soil Gas Survey, Page 3-1, Paragraph 3:**
The text references Appendix B for the original ion count results for each sampler located at the various sites included under the soil gas survey. The referenced Appendix B was not contained within the documents provided. A corrected reference or appropriate appendix information should be provided.

Agree. The correct reference should have been Appendix C, rather than Appendix B. The correction will be made in the revised text.

10. **Page 4-72, TCL SVOCs Section:**
Why was naphthalene the only target compound analyzed for in the background soils?

Naphthalene was not the only target compound analyzed for in background soils. The sentence has been modified to convey the intended information. See response to "Specific Comments" No. 3.

11. **Page 4-74, TCL SVOCs Section:**
Why weren't 4-methylphenol and bis(2-ethylhexyl)phthalate target analytes in the background soil samples?

The only group of SVOCs analyzed in background soil samples are PAHs because they are commonly occurring TCL SVOCs of anthropogenic origin. 4-methylphenol belongs to the phenolic SVOC group and BEHP is a phthalate ester. The rationale for background sample analyses is explained in the response to "Specific Comment" No. 3.

12. **Page 4-87, Pesticides and PCBs:**
The three pesticide compounds were detected above CRQLs. Why were the detected concentrations qualified as estimated?

The surrogate recoveries of pesticide compounds of the associated samples (18SB4(40-42) and 18SB1(5-7)) were below the acceptable lower limit of recovery (60%). The concentrations of pesticides detected in these samples were therefore qualified as estimated during data validation.

13. **Page 4-91, TCL VOCs:**
State the concentrations of TCE detected in the four subsurface soil samples in the body of the report.

Comments noted. The sentence has been revised accordingly.

14. **Page 4-150, TAL Metals Section:**
The text states that some of the analytes detected were done so at concentrations both above and below CRDLs. This paragraph is ambiguous. Please clarify.

Comments noted. The paragraph has been revised.

15. **Page 5-2, Section 5.3:**
Why were surface and subsurface soil samples not collected at Site 9 during the soils assessment? Until the reported disposal of thousands of gallons of JP-4 can be refuted through the analysis of surface and subsurface soil samples, the Agency will not agree to closing this site out.

Comment noted. Twelve surface and subsurface soils were collected and analyzed for BTEX compounds during the Verification Study. None of the BTEX compounds were detected. At the same time, laboratory analyses of groundwater samples from this site did not detect any organic components of the fuel allegedly disposed of. The consensus among the Navy and ABB-ES at the present time is that historical information about this site could be inaccurate. This opinion is presented in Technical Memorandum No. 6, Definition of Operable Units, which was submitted for review on March 23, 1995.

16. **Page 5-7, Bulleted Item 3 (Bottom of Page):**
Why haven't background subsurface soil samples been collected or identified for this assessment? See comment No. 3 under the "General Comments" Section above.

See the response to "General Comments" No. 3. The rationale at the time of planning the background soil characterization was that the depth to groundwater and the variety of subsurface lithology in the vadose zone would prohibit the collection of representative background samples from the subsurface.

RESPONSE TO COMMENTS
SOUTHNAVFACENGCOM
RI Phase IIA
Technical Memorandum No. 3, Soils Assessment
NAS Whiting Field, Milton, Florida

1. **Page vii:**
Under Summary and Conclusions, Site 3 and Site 6 are not lined up with the rest of the sites.

Agree. The text will be aligned with the rest of the Chapter 5.0 table of contents.

2. **Page 1-4:**
Top line should read "....and has since served as a.."

Agree. The text has been revised accordingly.

3. **Page 1-8,line 5:**
Should delete the word "that"

The word "that" has been deleted.

4. **Page 1-18, Section 1.5.2, line 4:**
Should read "This soil is sandy..."

Agree. The text has been revised accordingly.

5. **Page 4-1, Section 4.1:**
I was unable to determine where the anomalies were on the figure.

Two figures are mentioned on that page: Figure 2-1 and Figure 2-2. Copies of Figure 2-1 did not clearly reveal the schematic shading representing the geophysical anomaly at Site 1. The shading will be emboldened in the revised copy of the figure to make it more noticeable. In the case of Figure 2-2, the geophysical anomalies are not labelled as such instead the geophysical anomalies interpreted as landfill areas were shaded.

6. **Page 4-2, Site 13:**
Could this possibly be buried drums?

Although it is possible that the isolated geophysical anomalies are buried drums, a test pit excavation at the location indicated metal cans, wood, paper, plastic garbage and the presence of hard metal forms. It is likely that similar materials were buried throughout the area.